

C.O.C. # 176

CHAIN OF CUSTODY REPORT

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
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(509) 924-9200 924-9290
(503) 906-9200 FAX 906-9210
(541) 383-9310 FAX 382-7588

Work Order #: M107034

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|---|--------------------|------------------------|------|---------------|--|--|--|------------|--|--|--|----------------------------------|--|---|--|---------------|--|---------|--|
| CLIENT: Bristol | | INVOICE TO: Bristol | | | | | | | | | | | | TURNAROUND REQUEST in Business Days* Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. <input type="checkbox"/> OTHER Please Specify _____ <small>*Turnaround Requests less than standard may incur Rush Charges.</small> | | | | | |
| REPORT TO: Anne Krauswetter | | P.O. NUMBER: 21090 | | | | | | | | | | | | | | | | | |
| ADDRESS: Amchitta Island, AK | | PROJECT NAME: Amchitta | | | | | | | | | | | | MATRIX (W, S, O) # OF CONT. COMMENTS NCA WO ID | | | | | |
| PHONE: 907 770-0974 FAX: 770-0975 | | PROJECT NUMBER: 21090 | | | | | | | | | | | | | | | | | |
| SAMPLED BY: CCA / DSJ | | REQUESTED ANALYSES | | | | | | | | | | | | *Turnaround Requests less than standard may incur Rush Charges. | | | | | |
| CLIENT SAMPLE IDENTIFICATION | SAMPLING DATE/TIME | PRO | BTEX | Naph | | | | | | | | | | | | | | | |
| 1. 01AM F1002SL | 7/14/01 1110 | X | X | | | | | | | | | | | | | S 2 | | | |
| 2. 01AM F1003SL | 7/14/01 1115 | X | X | | | | | | | | | | | | | S 2 | | | |
| 3. | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | |
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| 9. | | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | | |
| 12. | | | | | | | | | | | | | | | | | | | |
| 13. | | | | | | | | | | | | | | | | | | | |
| 14. | | | | | | | | | | | | | | | | | | | |
| 15. | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY: <i>Charles Marshall</i> | | FIRM: Bristol | | DATE: 7/14/01 | | | | TIME: 1631 | | | | RECEIVED BY: <i>Steph Wilson</i> | | FIRM: NCA | | DATE: 7-14-01 | | | |
| PRINT NAME: | | FIRM: | | DATE: | | | | TIME: | | | | PRINT NAME: | | FIRM: | | DATE: | | | |
| RELINQUISHED BY: | | FIRM: | | DATE: | | | | TIME: | | | | RECEIVED BY: | | FIRM: | | DATE: | | | |
| PRINT NAME: | | FIRM: | | DATE: | | | | TIME: | | | | PRINT NAME: | | FIRM: | | DATE: | | | |
| ADDITIONAL REMARKS: F-10 AGT oil Beddy sand / Non Regulated | | | | | | | | | | | | | | | | TEMP: | | PAGE OF | |



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541.383.9310 fax 541.382.7588

7 December, 2001

Anne Kranawetter
Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 07/14/01 16:31. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson
Environmental Group Leader

Work Orders included in this report:

M107034



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Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
07/17/01 15:28

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-------------|---------------|--------|----------------|----------------|
| 01AMF1002SL | M107034-01 | Soil | 07/14/01 11:10 | 07/14/01 16:31 |
| 01AMF1003SL | M107034-02 | Soil | 07/14/01 11:15 | 07/14/01 16:31 |

COC #176

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

North Creek Analytical, Inc.
Environmental Laboratory Network

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Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
07/17/01 15:28

Diesel Hydrocarbons (C10-C25) per AK102
North Creek Analytical - Mobile Lab

| Analyte | Result | Reporting Limit | Units | Dilution | Method | Prepared | Analyzed | Batch | Notes |
|--------------------------------------|--------------|--------------------|-----------|----------|--------|--------------------------------------|----------|---------|-----------|
| 01AMF1002SL (M107034-01) Soil | | | | | | Sampled: 07/14/01 Received: 07/14/01 | | | |
| Diesel Range Organics | 18400 | 1500 | mg/kg dry | 1 | AK 102 | 07/15/01 | 07/15/01 | 0107056 | R-02 |
| <i>Surr: 1-Chlorooctadecane</i> | 88.6 % | 50-150 | | | | | | | |
| <i>Surr: Triacontane</i> | 121 % | 50-150 | | | | | | | |
| 01AMF1003SL (M107034-02) Soil | | | | | | Sampled: 07/14/01 Received: 07/14/01 | | | |
| Diesel Range Organics | 2170 | 1500 | mg/kg dry | 1 | AK 102 | 07/15/01 | 07/15/01 | 0107056 | D-16,R-02 |
| <i>Surr: 1-Chlorooctadecane</i> | 77.1 % | 50-150 | | | | | | | |
| <i>Surr: Triacontane</i> | 114 % | 50-150 | | | | | | | |

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
07/17/01 15:28

BTEX, MTBE and Naphthalene per EPA Method 8021B

North Creek Analytical - Mobile Lab

| Analyte | Result | Reporting Limit | Units | Dilution | Method | Prepared | Analyzed | Batch | Notes | |
|--------------------------------------|--------------|--------------------|-----------|----------|-------------------|----------|--------------------|---------|-------------|-------------|
| 01AMF1002SL (M107034-01) Soil | | | | | Sampled: 07/14/01 | | Received: 07/14/01 | | R-05 | |
| Benzene | ND | 0.105 | mg/kg dry | 50 | 1B BTEX/MTI | 07/16/01 | 07/16/01 | 0107064 | | |
| Toluene | ND | 0.419 | " | " | " | " | " | " | | |
| Ethylbenzene | ND | 0.419 | " | " | " | " | " | " | | |
| Xylenes (total) | ND | 0.837 | " | " | " | " | " | " | | |
| Naphthalene | 60.4 | 4.19 | " | " | " | " | " | " | | |
| | | | | | | | | | | |
| <i>Surr: 4-BFB</i> | <i>129 %</i> | <i>50-150</i> | | | | | | | | <i>S-02</i> |

| | | | | | | | | | |
|--------------------------------------|---------------|---------------|-----------|----|--------------------------------------|----------|----------|---------|--|
| 01AMF1003SL (M107034-02) Soil | | | | | Sampled: 07/14/01 Received: 07/14/01 | | | | |
| Benzene | ND | 0.0964 | mg/kg dry | 50 | 1B BTEX/MTI | 07/16/01 | 07/17/01 | 0107064 | |
| Toluene | ND | 0.386 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.386 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.771 | " | " | " | " | " | " | |
| Naphthalene | ND | 3.86 | " | " | " | " | " | " | |
| <i>Surr: 4-BFB</i> | <i>84.3 %</i> | <i>50-150</i> | | | | | | | |

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Environmental Laboratory Network

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Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
07/17/01 15:28

Physical Parameters per APHA/ASTM/EPA Methods
North Creek Analytical - Mobile Lab

| Analyte | Result | Reporting Limit | Units | Dilution | Method | Prepared | Analyzed | Batch | Notes |
|--------------------------------------|--------|--------------------|-------|----------|--------------------------------------|----------|----------|---------|-------|
| 01AMF1002SL (M107034-01) Soil | | | | | Sampled: 07/14/01 Received: 07/14/01 | | | | |
| % Solids | 94.6 | 0.0100 % by Weight | | 1 | Gravimetric | 07/15/01 | 07/16/01 | 0107063 | |
| 01AMF1003SL (M107034-02) Soil | | | | | Sampled: 07/14/01 Received: 07/14/01 | | | | |
| % Solids | 90.1 | 0.0100 % by Weight | | 1 | Gravimetric | 07/15/01 | 07/16/01 | 0107063 | |

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
07/17/01 15:28

Diesel Hydrocarbons (C10-C25) per AK102 - Quality Control

North Creek Analytical - Mobile Lab

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 0107056 - 3545 ASE

Blank (0107056-BLK1)

Prepared & Analyzed: 07/15/01

| | | | | | | | | | |
|--------------------------|------|-----|-----------|------|--|------|--------|--|--|
| Diesel Range Organics | ND | 150 | mg/kg wet | | | | | | |
| Surr: 1-Chlorooctadecane | 22.1 | | " | 23.7 | | 93.2 | 50-150 | | |
| Surr: Triacontane | 22.4 | | " | 23.5 | | 95.3 | 50-150 | | |

LCS (0107056-BS1)

Prepared & Analyzed: 07/15/01

| | | | | | | | | | |
|--------------------------|------|-----|-----------|------|--|------|--------|--|--|
| Diesel Range Organics | 1120 | 150 | mg/kg wet | 1250 | | 89.6 | 75-125 | | |
| Surr: 1-Chlorooctadecane | 25.6 | | " | 23.7 | | 108 | 50-150 | | |
| Surr: Triacontane | 23.8 | | " | 23.5 | | 101 | 50-150 | | |

LCS Dup (0107056-BSD1)

Prepared & Analyzed: 07/15/01

| | | | | | | | | | |
|--------------------------|------|-----|-----------|------|--|------|--------|------|----|
| Diesel Range Organics | 1340 | 150 | mg/kg wet | 1250 | | 107 | 75-125 | 17.9 | 20 |
| Surr: 1-Chlorooctadecane | 17.5 | | " | 23.7 | | 73.8 | 50-150 | | |
| Surr: Triacontane | 21.3 | | " | 23.5 | | 90.6 | 50-150 | | |

Matrix Spike (0107056-MS1)

Source: M107030-01

Prepared & Analyzed: 07/15/01

| | | | | | | | | | |
|--------------------------|------|-----|-----------|------|----|------|--------|--|--|
| Diesel Range Organics | 1530 | 150 | mg/kg dry | 1330 | ND | 114 | 60-140 | | |
| Surr: 1-Chlorooctadecane | 16.9 | | " | 25.2 | | 67.1 | 50-150 | | |
| Surr: Triacontane | 24.0 | | " | 25.0 | | 96.0 | 50-150 | | |

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Bristol Environmental & Engineering
2000 W International Airport C#1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
07/17/01 15:28

BTEX, MTBE and Naphthalene per EPA Method 8021B - Quality Control

North Creek Analytical - Mobile Lab

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 0107064 - MeOH Extraction

Blank (0107064-BLK1)

Prepared & Analyzed: 07/16/01

| | | | |
|-----------------|----|--------|-----------|
| Benzene | ND | 0.0250 | mg/kg wet |
| Toluene | ND | 0.100 | " |
| Ethylbenzene | ND | 0.100 | " |
| Xylenes (total) | ND | 0.200 | " |
| Naphthalene | ND | 1.00 | " |

Surr: 4-BFB 2.61 " 2.50 104 50-150

LCS (0107064-BS1)

Prepared & Analyzed: 07/16/01

| | | | | | | |
|-----------------|------|--------|-----------|------|------|--------|
| Benzene | 2.39 | 0.0250 | mg/kg wet | 2.50 | 95.6 | 69-138 |
| Toluene | 2.53 | 0.100 | " | 2.50 | 101 | 53-151 |
| Ethylbenzene | 2.52 | 0.100 | " | 2.50 | 101 | 61-141 |
| Xylenes (total) | 7.73 | 0.200 | " | 7.50 | 103 | 62-141 |
| Naphthalene | 3.09 | 1.00 | " | 2.50 | 124 | 65-135 |

Surr: 4-BFB 2.76 " 2.50 110 50-150

North Creek Analytical - Mobile Lab

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Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 21090
Project Manager: Anne Kranawetter

Reported:
07/17/01 15:28

Notes and Definitions

D-16 Detected hydrocarbons in the diesel do not have a distinct diesel pattern and may be due to heavily weathered diesel.

R-02 The reporting limit for this analyte was raised due to the high analyte concentration present in the sample.

R-05 Reporting limits raised due to dilution necessary for analysis.

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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North Creek Analytical, Inc.
Environmental Laboratory Network

7 of 7

Items for Project Manager Review

| LabNumber | Analysis | Analyte | Exception |
|------------|-------------------|-----------------------|---|
| | | | Report recreated from: \\sisters\elmnt\Report\M107034 FINAL 07 17 01 1528.mdb |
| | | | Default Report (not modified) |
| M107034-01 | 8021B BTEX/MTBE/N | | Analysis Date before Prep Date |
| M107034-01 | 8021B BTEX/MTBE/N | 4-BFB | S-02 |
| M107034-01 | 8021B BTEX/MTBE/N | | R-05 |
| M107034-01 | AK102 (DRO) | Diesel Range Organics | R-02 |
| M107034-02 | AK102 (DRO) | Diesel Range Organics | R-02 |
| M107034-02 | AK102 (DRO) | Diesel Range Organics | D-16 |